

Clean Version of Pending Claims

FLEXIBLE TAPE ELECTRONICS PACKAGING

Applicant: Ajit V. Sathe

Serial No.: 09/893,036

SUB D
A1
17. (Amended) An electronic package substrate comprising:
a thin, flexible, electrically insulating film having a conductor region to mount an integrated circuit;
a plurality of traces within the film, including within the conductor region; and
a plurality of lands on a surface of the film and coupled to the traces, wherein the lands are to mount corresponding pads of the integrated circuit in a ball grid array.

D
18. The electronic package substrate recited in claim 17, wherein the film is formed of material from the group comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

A2
19. (Amended) The electronic package substrate recited in claim 17, wherein the film comprises a plurality of layers, each comprising a plurality of traces.

A3
21. (Amended) An electronic package comprising:
an electrically insulating film having a thickness in the range of approximately .15 to .90 millimeters, the film having a conductor region, a plurality of traces in the conductor region, and a plurality of lands coupled to the traces; and
an integrated circuit having a plurality of pads coupled to the plurality of lands in a ball grid array.

22. The electronic package recited in claim 21, wherein the film is formed of material from the group comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

23. The electronic package recited in claim 21, wherein the film comprises a plurality of layers, each comprising a plurality of traces in the conductor region, and wherein each layer has a thickness within the range of approximately .15 to .30 millimeters.

SUB D7
A4
26. (Amended) An electronic system having at least one electronic assembly comprising:
a thin, flexible, electrically insulating film having a conductor region, a plurality of traces in the conductor region, and a plurality of lands coupled to the traces; and
an integrated circuit having a plurality of pads coupled to the plurality of lands in a ball grid array.

27. The electronic system recited in claim 26, wherein the film is formed of material from the group comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

28. The electronic system recited in claim 26, wherein the film comprises a plurality of layers, each comprising a plurality of traces in the conductor region.

SUB D7
A5
31. (Amended) A data processing system comprising:
a bus coupling components in the data processing system;
a display coupled to the bus;
a memory coupled to the bus; and
a processor coupled to the bus and comprising an electronic assembly including,
a thin, flexible electrically insulating film having a conductor region, a plurality of traces in the conductor region, and a plurality of lands coupled to the traces; and
an integrated circuit having a plurality of pads coupled to the plurality of lands in a ball grid array.

32. The data processing system recited in claim 31, wherein the film is formed of material from the group comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass. **NE**

33. The data processing system recited in claim 31, wherein the film comprises a plurality of layers, each comprising a plurality of traces in the conductor region.

SUB 37
A6
35. The electronic package substrate recited in claim 17, wherein the film comprises one or more vias coupled to corresponding ones of the traces.

36. The electronic package substrate recited in claim 19, wherein the film comprises one or more vias to couple traces within different layers.

D
37. A package substrate comprising:
a thin, flexible, electrically insulating film having a conductor region to mount an integrated circuit;
a plurality of traces, at least some of which are within the conductor region;
one or more vias within the film and coupled to corresponding ones of the traces; and
a plurality of lands on a surface of the film and coupled to the traces, wherein the lands are to mount corresponding pads of the integrated circuit.

38. The package substrate recited in claim 37, wherein the film is formed of material from the group comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

39. The package substrate recited in claim 37, wherein the film comprises a plurality of layers, each comprising a plurality of traces.

Sub D77
40. The package substrate recited in claim 39, wherein the one or more vias couple traces within different layers.

41. The electronic package recited in claim 21, wherein the film comprises one or more vias coupled to corresponding ones of the traces.

A6
42. The electronic package recited in claim 23, wherein the film comprises one or more vias to couple traces within different layers.

43. The electronic system recited in claim 26, wherein the film comprises one or more vias coupled to corresponding ones of the traces.

44. The electronic system recited in claim 28, wherein the film comprises one or more vias to couple traces within different layers.

45. The data processing system recited in claim 31, wherein the film comprises one or more vias coupled to corresponding ones of the traces.

46. The data processing system recited in claim 33, wherein the film comprises one or more vias to couple traces within different layers.
